

**IMPLANTABLE PULSE GENERATOR SYSTEM AND METHOD FOR
UTILIZING COMMUNICATION PROTOCOLS**

ABSTRACT

5 An implantable pulse generator communicates with external devices such as
device programmers and network repeaters to exchange data. The communication
utilizes a communication protocol such that data is transferred in packets and transport
control information is included for each of the packets. Network routing information
may also be provided for each of the packets to establish additional capabilities including
10 network addressing, priority control, or recipient validation. Information exchange
instructions are executed by the implantable pulse generator to take data from one or
more application programs being executed by the implantable pulse generator, divide the
data into packets, and add the transport control information, and network routing
information if desired, for outgoing packets. Additionally, the information exchange
15 instructions may be executed by the implantable pulse generator to extract the network
routing information if available and the transport control information from incoming
packets and to reconstruct the data from the packets and provide the data to the one or
more application programs.